

Diné Power Authority

(DPA)

Presentation Prepared for

Office of Energy Efficiency and Renewable Energy

TRIBAL ENERGY PROGRAM

October 20, 2004



Presenter: Ben Hoisington
Project Administrator, DPA

Major Dine Power Authority (DPA) Energy Projects

- DPA and New Transmission Development (NTD), an enterprise of Trans-Elect, Inc., are planning to develop the Navajo Transmission Project (NTP)
- DPA and SITHE Global, LLC are developing the Desert Rock Energy Project (DREP)
- DPA is in the planning stages of assessing the economic feasibility of a large-scale renewable or similar energy project on the Navajo Nation utilizing the NTP and other Nation resources

Diné Power Authority (DPA) Background

- Diné Power Authority (DPA) is an enterprise of the Navajo Nation established under Title 21 §201 of the Navajo Nation Code. It was created in 1985 by the Navajo Tribal Council for the purpose of developing electric transmission and generation projects within the Navajo Nation.
- In 1991, Diné Power Authority (DPA), was given the responsibility to develop the NTP in order to address the opportunity and need for additional transmission in this region. DPA began development of the NTP to close the Nation's largest electric transmission gap between the generation-rich Four Corners region and the load demand areas in the Southwest and Southern California. This process included identifying different alternative route corridors for a 500 kV transmission line that would extend from the Four Corners area in New Mexico, across northern Arizona and into southern Nevada and have the least environmental impact on the surrounding lands.



Diné Power Authority (DPA) Background

- New Transmission Development, LLC (NTD) is a wholly-owned subsidiary of Trans-Elect, Inc. formed in 2002 to develop, construct, own or own the capacity rights in new electric transmission lines. DPA signed a Letter of Intent in 2002.
- On September 5, 2003 Diné Power Authority and STEAG Power, LLC signed a Development Agreement to co-develop a coal-fired, mine-mouthed electrical generation facility of up to 1,500 MW of power in the Four Corners Area of the Navajo Nation.



Navajo Transmission Project (NTP) Project Development Background

- Environmental studies and engineering efforts by consultants Dames & Moore, EPG, Inc. and Black & Veatch culminated in the successful completion of an Environmental Impact Statement (EIS) and a Record of Decision (ROD) in October of 1997 supporting the construction of the NTP.
- Other important consultants were AterWynne, Johnson & Associates, and RockPort Partners.

NTP Environmental Permitting Status

- DEIS—issued, 1996, FEIS—issued, 1997
 - Record of Decision—issued, 1997
 - State of Arizona CEC—issued, 2000
 - Signed Letter of Intent with Trans-Elect, Inc. – 2000
 - Navajo Nation Right-of-Way Grant—issued, 2002
 - Finalize Federal ROW Grants –**2004-2005**
 - **USFS, NPS, BLM, BIA**
 - ***Anticipated NTP Project Construction – late 2005***
-

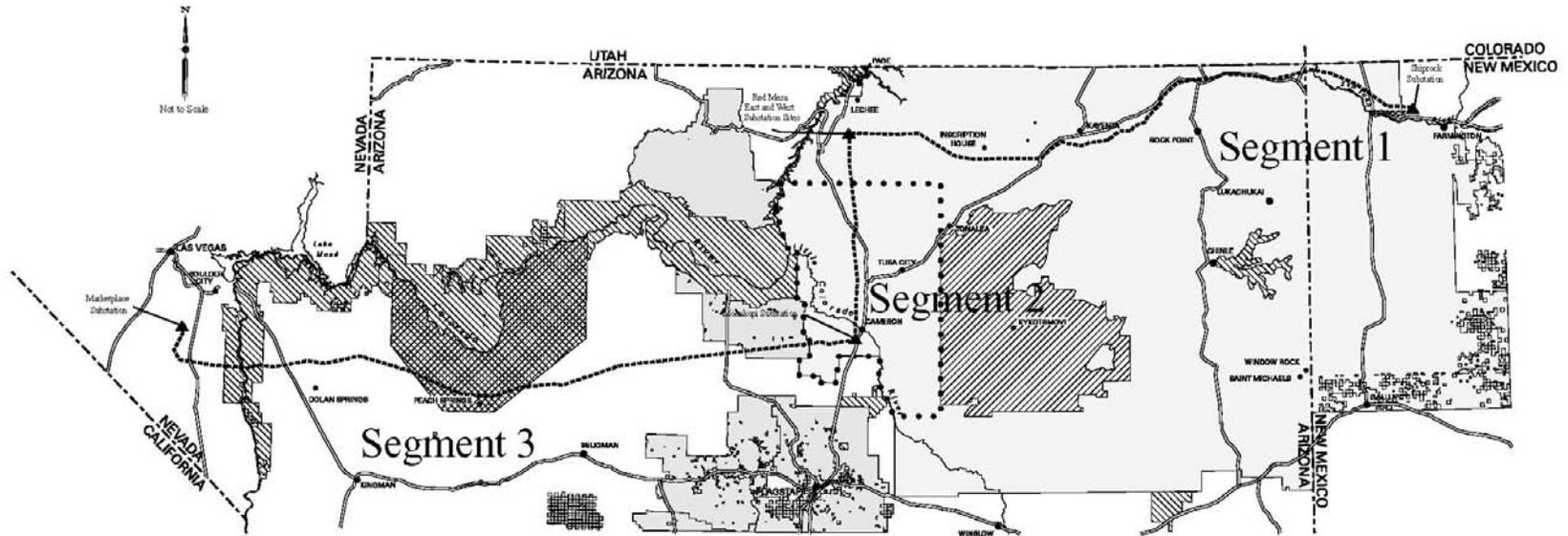
NTP Purpose and Need

- Improve the economic situation for the Navajo Nation based on revenues that result from construction and operation of the NTP.
- Relieve some regional transmission system constraints.
- Increase operating flexibility and reliability of the regional transmission grid.
- Allow economical power transactions utilizing the transmission system.
- Facilitate future development of Navajo energy resources (i.e., Desert Rock Energy Project)

NTP Project Description

- The NTP will be a 500 kilovolt (kV) alternating current (AC) transmission line extending from the Shiprock substation located in the Four Corners region in northwestern New Mexico to the Marketplace Substation south of Boulder City, Nevada. The approximate length of the line will be 470 miles. One or more interconnections will be established in central Arizona, either at a new substation (Red Mesa) or at the Moenkopi substation in the Cameron area.
 - Segment 1 – 189 mile 500 kV single circuit transmission line from the Four Corners Power Plant area to the Red Mesa substations site area. Generally parallels an existing 230 kV transmission line.
 - Segment 2 – 62 mile 500 kV single circuit transmission line from Red Mesa West site to Moenkopi II site near Cameron, AZ. Generally parallels an existing 345 kV transmission line.
 - Segment 3 – 218 mile 500 kV single circuit transmission line from Moenkopi II site to Marketplace substation in Southern Nevada. Generally parallels an existing 500 kV transmission line.
-

Navajo Transmission Project (NTP) Preferred Route Through Hualapai Tribal Lands



Legend

- Navajo Indian Reservation
- ▨ Hopi Indian Reservation
- ▩ Hualapai Indian Reservation
- ▧ National Parks and Recreation Areas
- ▦ National Forests
- State, Private, Municipal, or Bureau of Land Management
- • Bennett Freeze Area

Facilities

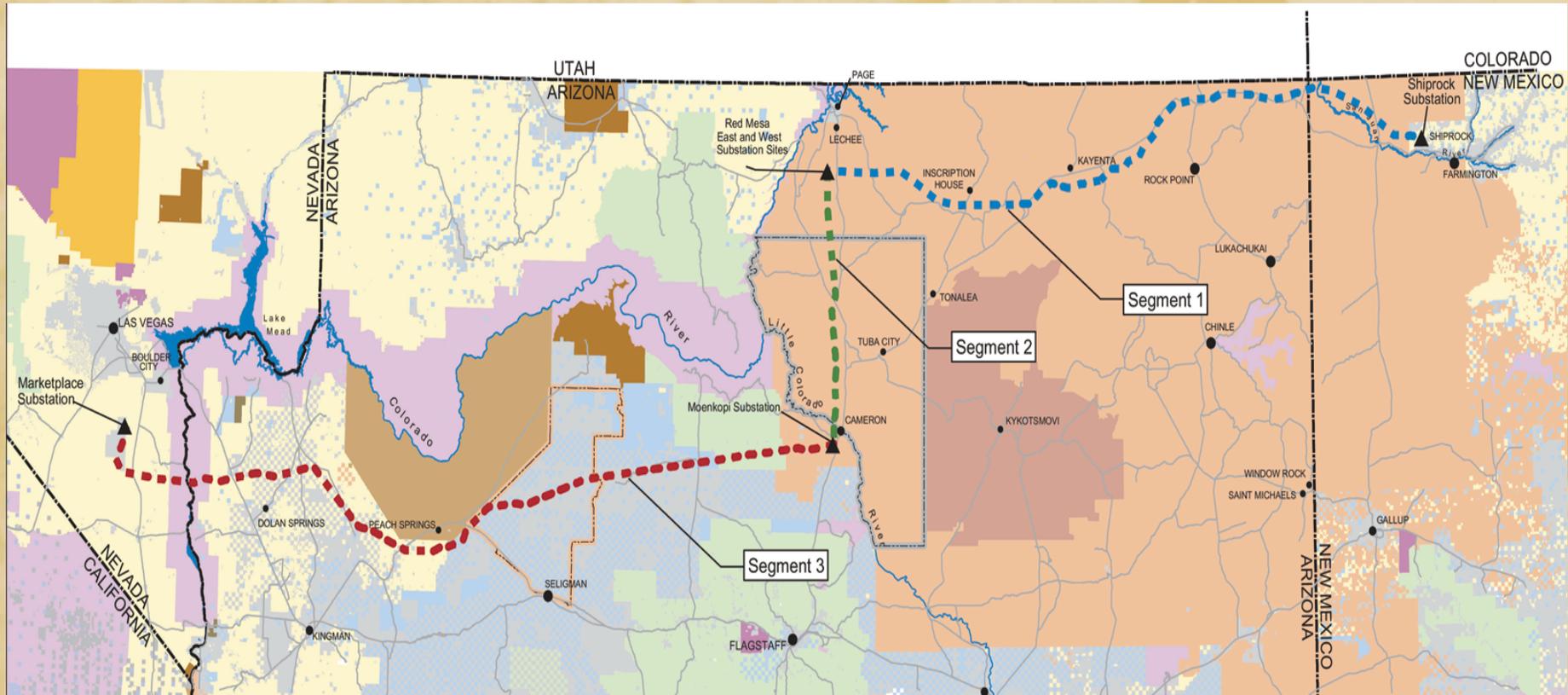
- Transmission Line Route
- ▲ Substation Sites

Project Location

Figure 1-1

[/fileicon2/http/comp/tem/fig1-1ocorp.aml](#) July 12, 1999

Navajo Transmission Project (NTP) Proposed 470-mile Right-of-Way



Segment 3:

218 miles, crossing Navajo Reservation, U.S. Forest Service – Kaibab National Forest (USFS), State of AZ, BLM (Kingman & LV field office), National Park Service - Lake Mead National Recreation Area (NPS), Bureau of Reclamation, Boulder City, and private lands.

Segment 2:

62 miles, crossing 23.66 miles of Bennett Freeze area & 0.44 miles of Navajo Indian Allotment Land within the Navajo Reservation

Segment 1:

189 miles, crossing BLM (Farmington Field Office), State of NM and Navajo Reservation



Navajo Transmission Project (NTP) Contingencies

- If Segment 2 is not built together with Segment 1, then Segment 1 will include the construction at the western terminus of one or two substations on the Kaibito Plateau (Red Mesa East (RME) and West (RMW) substations) that could interconnect with existing transmission lines. These interconnections would be made between Western's two 345kV Glen Canyon-Pinnacle Peak transmission lines (RMW) and one or both of the Navajo Project's two 500kV Navajo Westwing transmission lines (RME).
- If Segment 2 is constructed together with Segment 1, the NTP will interconnect with the central Arizona 500 kV grid by expanding the Moenkopi substation. The expansion is referred to as Moenkopi II. Also if Segment 2 is constructed together with segment 1, the Red Mesa Substations will not be constructed.

Navajo Transmission Project (NTP) Staged Construction

- Although all segments of the NTP are important and will be permitted, the sequence of construction of the NTP is impacted by market conditions and other ongoing permitting activities.
- Based on current analysis, the plan is to construct Segment 1 first including the eastern terminal near the Four Corners Power Plant and to construct the Red Mesa East Substation for interconnection to the central Arizona 500 kV grid. The Red Mesa East Substation will intercept and loop in only the Navajo – Moenkopi 500 kV line to achieve the interconnection. It is expected that system studies, being conducted through APS will indicate a project path rating of ~1200 - 1500 Megawatts.
- Timing of Segments 2 and 3 and additional substations or interconnections at Red Mesa and at Moenkopi will depend upon market conditions.

Navajo Transmission Project Milestone Schedule

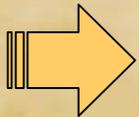
Discuss Project status and plan with regional utilities and interested parties.	1 st qtr. 2004
Complete permitting and licensing	1/2004–12/2004
Coordinate with Regional Transmission Organization to initiate and complete all system studies.	3/2004 – 6/2005
Complete engineering sufficient to support all permitting, system studies, and preparation of final EPC Project estimates.	1/2004 – 6/2005
Issue and Award EPC contracts	6/2005 – 9/2005
Overall Engineering, Procurement and Construction	9/2005 – 3/2008
Testing, Commissioning and Commercial Operation	3/2008 – 6/2008

Desert Rock Energy Project Developers

- DPA, an enterprise of the Navajo Nation identified to develop energy projects; Navajo Transmission Project (NTP) & Desert Rock Energy Project (DREP)
- STEAG Power LLC (now Sithe Global, LLC)
 - Independent power developer and generator having proven experience with state-of-the-art coal-fired technology and environmental controls
 - Invented, developed, and/or enhanced many of the air pollution control technologies being used today
 - Experienced Power Company that develops and operates coal-fired projects internationally

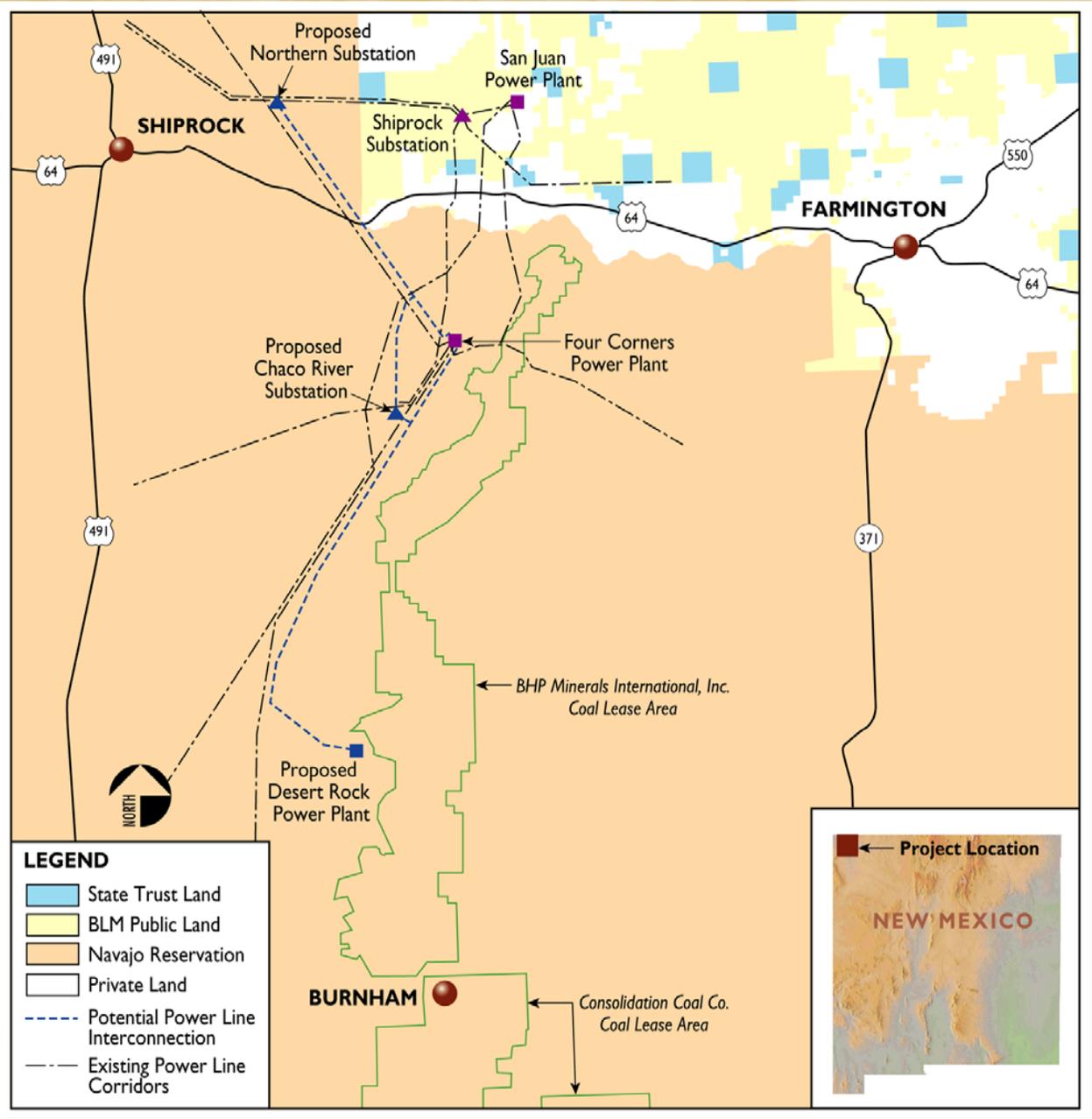
Project Objective

- Co-development (Dine Power Authority and Sithe)
- Co-ownership (DPA, Navajo Nation and Sithe)
- Use state-of-the-art technology,
- Highly efficient, environmentally-friendly, coal-fired power plant which meets applicable regulatory standards
- Efficient and optimum use of Navajo Nation resources
- Provide maximum benefits to the Navajo Nation and local communities



The Desert Rock Energy Project will be the largest project *ever* developed on the Navajo Nation *with* the Navajo Nation in an *active development* role *with rights to acquire equity ownership*.

Location Site



Do not reproduce or distribute.



Project Schedule

Development



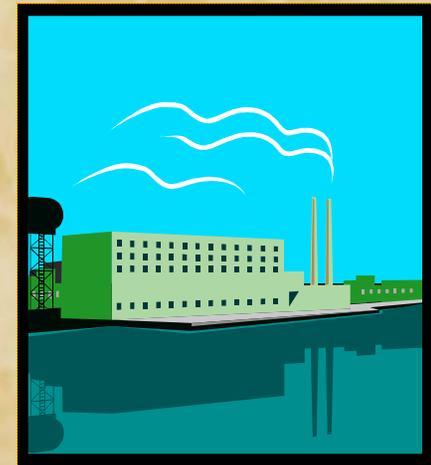
2003

Construction

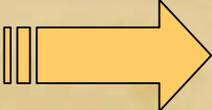


2005

Operation



2008



The Desert Rock Project will be the largest project ever developed on the Navajo Nation with the Navajo Nation in an active development role

THANK YOU FOR ATTENTION

Diné Power Authority (DPA), Steven C. Begay, General Manager

Phone: (928)-871-2133

E-mail: dpaadmin@citlink.net

**New Transmission Development Company (NTD), Perry Cole,
Senior Vice President.**

Phone: (406)-782-1907

E-mail: pcole@trans-elect.com or Cole@in-tch.com

Sithe Global, Freddy Sanches, Vice-President

Phone: (713) 499-1162

E-mail: sanches@sitheglobal.com

